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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,167	12/12/2000	Warren B. Jackson	XXT-090	5416

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EXAMINER

PENDERGRASS, KYLE M

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/735,167

Applicant(s)

JACKSON ET AL.

Examiner

Kyle M Pendergrass

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/14 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10, 13-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen (US 6,509,974) & Freedman (US 4,839,829).

Regarding claims 1, 14 & 18, which reflect claims 26 & 27, Hansen teaches a computer system (column 3, lines 20-21, Fig 1, computer network 112) capable of extracting a print job from a PSDL ("PCX") file (column 4, lines 27-30, 40), and automatically converting a print job stored in a PSDL file into a proposed workflow (column 5, lines 15-27, Fig 1, print production workflow stages 104-106) for a printshop using the PSDL parser (column 4, lines 57-64, converting into common file format for printshop). Hansen also teaches dividing the print job into components and mapping the components of the print job to available resources of the print shop so as to set the buffer space between machines to optimal levels while processing the print job (column 5, line 62 – column 6, line 2, document library at job preparation stage 106 facilitates and manages the flow of jobs, & column 7, lines 32-38, managing the flow of jobs includes optimum load

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balancing). Hansen also teaches using print shop resource knowledge during the print production stage 108 for managing resources of the print shop (column 7, lines 1-2).

However, Hansen does not teach including print shop resource knowledge in the print job conversion process. Freedman teaches using resource knowledge recording resources in the print shop during the conversion process (column 1, lines 23-31, printing facility capabilities are used to determine if the printed work design can be produced at any of the connected printing facilities). Freedman further teaches a programmed computer network (Fig 1A, programmed computer 20).

Accordingly, it would have been obvious to one skilled in the art at the time of the invention to have used the teachings of Freedman in the computer system of Hansen. The Freedman teachings also allow the customer to choose the best printing facility over the network according to cost and time restraints at the time of job conversion. Freedman allows more thorough management of print job workflow by knowing the resources available at the print shop(s). In the Hansen computer system, knowing information regarding the resources during the conversion process provides information that creates an optimal routing and usage workflow, providing time- and cost-effective distribution to the customer, and ensuring more-efficient use of print shop resources.

Regarding claims 26 & 27, the claim rejection above for method claims 1 & 14, is representative of claims 26 & 27, which implement the methods described in those claims. See Hansen disclosure of the workflow management

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software that integrates the applications of the computer system (column 9, lines 20-21). Also see Freedman disclosure of computer program utilized for executable instructions in the computer system (column 7, lines 62-65, Figs 2A and 2B).

Regarding claims 26 & 27, see Hansen disclosure of the workflow management software that integrates the applications of the computer system (column 9, lines 20-21). Also see Freedman disclosure of computer program utilized for executable instructions in the computer system (column 7, lines 62-65, Figs 2A and 2B).

Regarding claims 2, 15, & 19, the claim rejections for claims 1, 14 & 18 are representative of claims 2, 15 & 19. See Hansen regarding executing said print job in said print shop using said proposed workflow (column 7, lines 43-46).

Regarding claim 3, the claim rejection for claim 1 is representative of claim 3. See Freedman regarding extracting the job resource requirements for the print job from the file (column 7, lines 42-44, 54-58).

Regarding claims 4, 16 & 21, the claim rejections for claims 1, 14 & 18 are representative of claims 4, 16 & 21. See Freedman teaching concerning the resource knowledge to include information regarding the availability in the print shop of available machines (column 10, line 61, production scheduling), machine operators (column 10, line 60, manpower), and materials required (column 10, line 60, required materials). See Hansen teaching concerning the resource knowledge to include information regarding the availability in the print shop of available machines (column 7, line 4, available devices 122), machine operators

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(column 8, lines 18-22, operator determination), work-in-progress (column 8, lines 19, 22-23, work-in-progress included in backlog determination) and inter-process storage buffer levels (column 5, lines 62-64, storage of jobs, & column 7, line 36, load balancing).

Regarding claims 5, 6, 7, 22, 23 & 24, claim rejections for claims 1, 14 & 18 are representative of claims 5, 6, 7, 22, 23 & 24. See Freedman regarding the use of the proposed workflow to generate a job cost estimate that includes material and labor costs (column 10, lines 59-63), and transmitting proposed workflow and said job cost estimate to a job submitter that submitted the print job for approval prior to processing said print job (column 10, lines 16-28).

Regarding claims 8 & 25, the claim rejections of claims 7 & 24 are representative of claims 8 & 25. See Freedman disclosure concerning the job submitter substituting new materials to replace materials included in said proposed workflow (column 10, lines 8- 14, customer selects decrease of pages in submission), creating a new proposed workflow which includes said new materials, generating a new job cost estimate (column 10, line 16, calculation of cost information) for said new proposed workflow, and transmitting said new job cost estimate and said new proposed workflow to said job submitter for approval (column 10, lines 19-28, customer is presented with cost and time information and given choice to proceed with print job).

Regarding claim 9, the claim rejection of claim 7 is representative of claim 9. See Freedman disclosure concerning the job submitter substituting new machines to replace machines included in said proposed workflow (column 10,

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line 19-24, customer selects particular printing machine, & column 12 lines 19-20, printing manager selects printing equipment, and column 13, lines 8-9, requestor is in communication with printing manager selecting print), creating a new proposed workflow which includes said new materials, generating a new job cost estimate (column 10, line 16, calculation of cost information) for said new proposed workflow, and transmitting said new job cost estimate and said new proposed workflow to said job submitter for approval (column 10, lines 19-28, customer is presented with cost and time information and given choice to proceed with print job).

Regarding claim 10, the claim rejection of claim 7 is representative of claim 10. See Freedman disclosure concerning the job submitter substituting new machine operators to replace operators included in said proposed workflow (column 10, line 19-24, customer selects particular printing facility with its estimate of, column 10, line 60, manpower), creating a new proposed workflow which includes said new materials, generating a new job cost estimate (column 10, line 16, calculation of cost information) for said new proposed workflow, and transmitting said new job cost estimate and said new proposed workflow to said job submitter for approval (column 10, lines 19-28, customer is presented with cost and time information and given choice to proceed with print job).

Regarding claim 13, the claim rejection for claim 1 is representative of claim 13. See Hansen disclosure wherein said PSDL file is a PCX file (column 4, line 40).

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Regarding claim 17, the claim rejection for claim 14 is representative of claim 17. See Freedman disclosure concerning the resource knowledge to further include information regarding operational speed (column 12, line 25, selection made by speed of equipment) and capacity of machines (column 10, lines column 12, lines 23-24, capacity of resource use for machines, & column 12, lines 27-30, machine capacity to ensure most efficient completion) in the print shop used in processing said print job (column 9 lines 15-24, 62-67, column 10 lines 1-9). See Hansen disclosure concerning capacity of machines (column 7, lines 1-5, keeping output devices fully utilized based on load balancing for effective capacity use).

Regarding claim 20, the claim rejection for claim 18 is representative of claim 20. See Hansen regarding the network realized using the Internet (column 3, lines 29-31).

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen (US 6,509,974), Freedman (US 4,839,829 & admitted prior art.

Concerning claims 11-12, the PSDL file formats of PPF and JDF are well-known in the art. [See applicant admission in the background of invention from Specification].

Accordingly, it would have been obvious to one skilled in the art at the time of the invention to have used the PSDL file formats of PPF & JDF because they are known in the art to be effective formats that allow the specification of a job in a printshop in accordance with operations to be performed, resources

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required, and the actual data content. They are proven formats that printshops can use to convert and process printing orders.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle Pendergrass whose telephone number is (703) 306-3445. The examiner can normally be reached on Monday-Friday 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, David K. Moore can be reached on (703) 308-7452. The fax phone number for the organization where this application or proceeding is assigned in (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application of proceeding should be directed to the receptionist whose telephone number is (703) 305-9700.

A handwritten signature in black ink, appearing to read "David Moore". The signature is fluid and cursive, with the first name "David" and last name "Moore" clearly distinguishable.

**DAVID MOORE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**